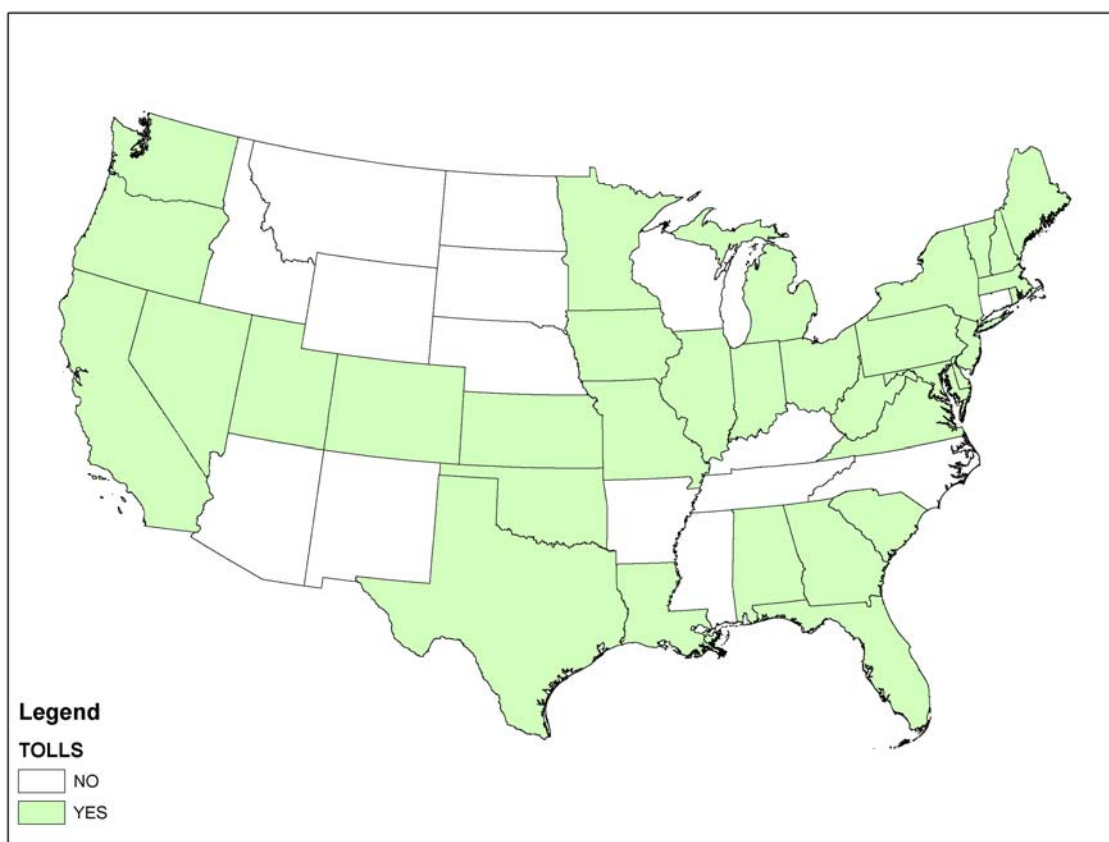


14.0 TOLL FUNDING SOURCES

14.1 Toll Information

Tolling is an option for funding roadway projects, including helping cover maintenance and operating costs as well as some of the initial construction costs. Across the United States, tolls average \$0.05 to \$0.13 per mile, although tolls are generally higher for commercial vehicles depending on the number of axles. Tolls are also usually higher for bridges and tunnels. Usually, as the price of the toll increases, fewer cars choose to use the roadway. Many states in the US currently have tolls. Below is a map (**Figure 21**) showing states that currently have toll roads (as indicated by the green shading).

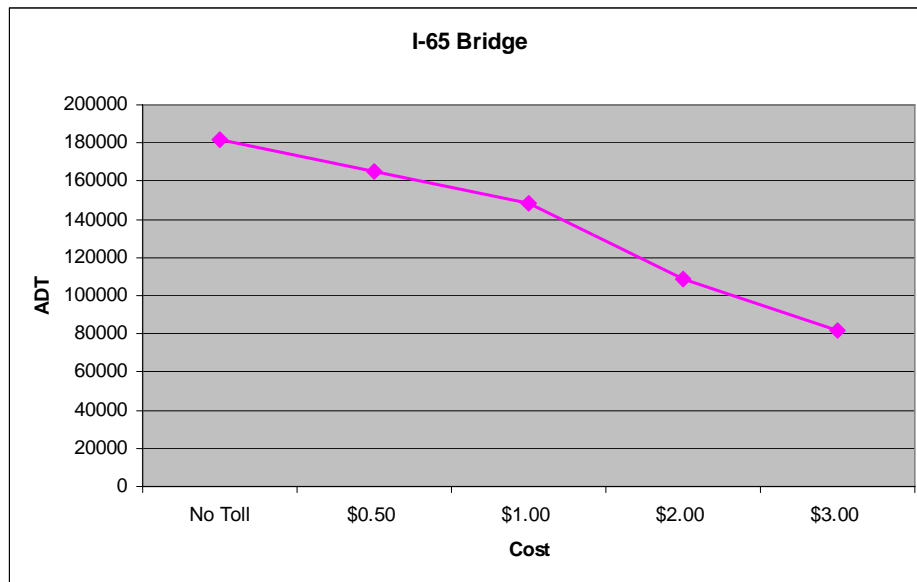
Figure 21: Map of States that Currently have Toll Facilities



Kentucky does not currently have any toll roads; however, it has tolled roadways in the past and is currently investigating tolls as a method of financing the Louisville – Southern Indiana Ohio River Bridges project. A brief overview study on tolling was performed for this project. The analysis found that travel time savings for passenger vehicles is equivalent to \$9.60 per hour, and \$33.00 per hour for trucks. Vehicle operating savings were found to equal \$0.16 per mile for passenger cars and \$0.65 per

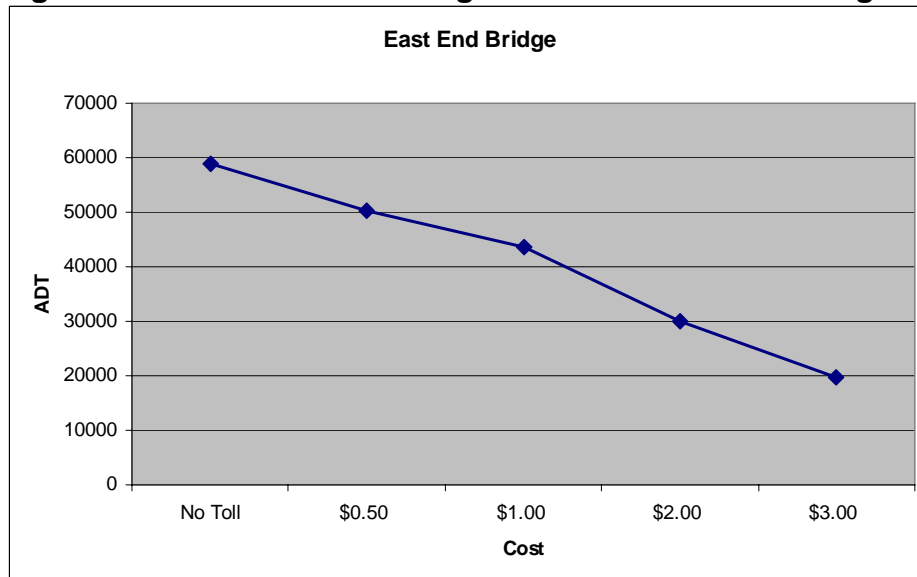
mile for trucks. The annual cost of operating a toll road, not including customer service center operations, was found to be \$655,600. The study also used travel demand modeling to determine how toll road usage would be affected by increasing toll prices. **Figures 22 and 23** shows the effects of toll price on ADT for two of the bridges being studied. These figures show that the sharpest decline in ADT occurs when the toll is raised from \$1.00 to \$2.00.

Figure 22: Effect of Toll Pricing on ADT of I-65 Bridge



Source: Louisville-Southern Indiana Ohio River Bridges Project Preliminary Traffic and Revenue Options Study. Wilbur Smith Associates.

Figure 23: Effect of Toll Pricing on ADT of East End Bridge



Source: Louisville-Southern Indiana Ohio River Bridges Project Preliminary Traffic and Revenue Options Study. Wilbur Smith Associates.

A review of toll pricing was performed for roadways across the United States. Data was primarily compiled from Toll Facilities in the United States: Bridges – Roads – Tunnels – Ferries, a document prepared by the Federal Highway Administration (FHWA). The roadways shown were selected as the most comparable data on existing facilities with similar lengths. Two tables are presented summarizing this data, one for entire tolled roadways and one for bridges only (**Table 17** and **Table 18**).

Table 17: Representative Toll Pricing in the US for Entire Roadways

State	Length (mi.)	Road Type	Min Pass Fee	Max Pass Fee	Min Truck Fee	Max Truck Fee
New York	5	Rural Minor Collector	\$9.00			
New York	5.6	Urban Freeway	\$0.32	\$23.05	\$0.67	\$93.85
New York	5.9	Rural Local	\$6.00			
Colorado	6.6	Urban Interstate	\$0.50	\$3.25	\$18.00	\$18.00
South Carolina	7.5	Rural Principal Arterial	\$0.50	\$1.00		
California	10	Urban Freeway	\$1.15	\$9.25	\$1.15	\$9.25
Texas	10.42	Urban Principal Arterial	\$1.00	\$1.25	\$6.25	
Texas	10.58	Urban Principal Arterial	\$1.00	\$1.25	\$6.25	
Texas	11	Urban Freeway	\$2.00		\$12.50	
New York	15	Urban Interstate	\$1.13	\$2.50	\$2.61	\$8.25
Oklahoma	17.3	Rural Minor Arterial	\$1.00		\$1.00	\$2.00
New York	17.9	Rural Interstate	\$0.32	\$23.05	\$0.67	\$93.85
Texas	21.7	Urban Principal Arterial	\$2.00	\$2.50	\$12.50	
Utah	22.5	Rural Principal Arterial	\$2.00		\$8.00	
Ohio	22.5	Rural Interstate	\$1.00		\$1.50	\$3.25
Oklahoma	25	Rural Interstate	\$4.00		\$16.00	

Source: Toll Facilities in the United States: Bridges - Roads - Tunnels – Ferries. December 2007.
Publication No: FHWA-PL-07-029

Table 18: Representative Toll Pricing in the US for Bridges

State	Length (mi.)	Road Type	Min Pass Fee	Max Pass Fee	Min Truck Fee	Max Truck Fee
Minnesota - North Dakota	0.1	Non-interstate	\$0.63	\$0.75	\$0.63	\$0.75
Illinois - Iowa	0.19	Non-interstate	\$0.50		\$0.50	
New York	0.2	Non-interstate	\$2.00	\$4.00	\$2.00	\$12.00
New York - Canada	0.2	Non-interstate	\$3.00		\$3.00	\$55.00
Texas - Mexico	0.2	Non-interstate	\$2.00	\$7.00	\$7.00	\$20.00
Texas - Mexico	0.2	Non-interstate	\$2.50	\$6.00	\$8.00	\$20.00
Texas - Mexico	0.2	Non-interstate	\$1.65			
Texas - Mexico	0.26	Non-interstate	\$2.50		\$7.00	\$19.00
Texas - Mexico	0.3	Non-interstate	\$1.65			
Alabama	0.39	Non-interstate	\$1.50		\$3.50	\$5.00
New York	0.4	Non-interstate	\$1.00	\$2.25	\$3.60	\$27.00
Texas - Mexico	0.4	Non-interstate	\$2.50			
Illinois - Indiana	0.5	Non-interstate	\$1.00		\$1.50	\$3.00
New York - Canada	0.5	Non-interstate	\$3.00		\$3.00	\$55.00
Texas - Mexico	0.5	Non-interstate	\$1.65			
Alabama	0.59	Non-interstate	\$1.25		\$2.50	\$3.25
Illinois - Iowa	0.6	Non-interstate	\$1.00		\$4.00	\$10.00
New York	0.6	Non-interstate	\$0.30	\$1.00	\$2.50	\$9.00
Alabama	0.62	Non-interstate	\$1.50		\$3.50	\$5.00
New York	0.7	Non-interstate	\$0.30	\$1.00	\$2.50	\$9.00
New York	0.7	Non-interstate	\$1.75	\$2.25	\$3.60	\$27.00
New York - Canada	0.7	Non-interstate	\$2.70	\$3.00	\$5.40	\$13.00
New York	0.8	Non-interstate	\$1.00	\$2.25	\$3.60	\$27.00
Illinois - Indiana	0.9	Non-interstate	\$0.50		\$0.70	\$1.70
Interstate Bridges	1 to 5		\$0.30	\$6.00	\$1.43	\$108.00
Interstate Bridges	>5		\$0.40	\$4.00	\$1.15	\$53.44

Source: Toll Facilities in the United States: Bridges - Roads - Tunnels – Ferries. December 2007.
Publication No: FHWA-PL-07-029

The following table (**Table 19**) shows the length of time it would take to pay for the given alternative / scenario combination. Assumptions used in this calculation include:

- 2040 ADT numbers
- Maximum percentage of trucks assumed per alternative
- Reduction in ADT due to tolling as derived from the Ohio River Bridges Study
- \$1.00 fee for cars; \$2.00 for trucks
- Inflation is not taken into consideration

Table 19: Number of Years with a Toll to Pay for Roadway

Alternative Corridors	Number of Years to Pay for Given Scenario							
	2-Lane, at-grade	2-Lane, at-grade, 10' Path	2-Lane, Limited Access	2-Lane, Limited Access, 10' Path	4-Lane, at-grade	4-Lane, at-grade, 10' Path	4-Lane, Limited Access	4-Lane, Limited Access, 10' Path
0	0	0	0	0	0	0	0	0
4-2	25	29	31	34	44	47	49	52
4-4	23	26	28	31	39	42	44	47
5-2	26	29	32	35	44	48	50	54
5-4	25	28	31	34	43	46	49	52
6-2	30	34	37	41	49	53	56	60
6-4	31	35	37	41	53	57	59	63

As shown by this table, it is possible to pay for the new route during a 30-year bond period. However, this means the roadway would have to be constructed as a two-lane facility. The maximum number of years to pay for the highest cost alternative (6-4 with 4-lanes, limited access, and a 10-foot path) would be 63 years using tolls.

From this review of available toll information, several conclusions can be drawn:

- Tolling would decrease the amount of traffic that would use the proposed connector road.
- The majority of states surrounding Kentucky have toll roads.
- Based on similar roadways, tolls between \$1 to \$2 may be appropriate.
- Tolling the bridge over the Kentucky River only does not seem to be cost-effective.
- Tolling could pay for the project or a large portion thereof.
- A more complete toll study will need to be performed at a later date if this is considered for one of the build alternatives during any further project development phases.

14.2 Project Privatization

Project privatization is a method of funding road projects that involves selling a toll road to a private company for a fixed number of years, in exchange for a large upfront payment. The benefits of this method are that it provides a large sum of money that allows for initial investment in capital costs of other roadway projects. Projects that have been funded by this method in the United States in the last few years have involved toll roads being sold for between \$1 and \$4 billion. Once the toll road has been sold the private company becomes responsible for maintenance of the roadway as well as toll operations. While project privatization does provide a very large amount of money initially and relieves the public of having to maintain and operate the road, there are some drawbacks to this method of funding. The first is that the public does not receive the full value of the tolls. While a large sum of money is received upfront, private companies would not invest in the roadway if they could not make a profit. The profit they make is money that could have been put back into roadway funds. Secondly, control of the roadway is lost. Many contracts include non-compete clauses that state that competing roadways cannot be built. The private company is not concerned about the transportation system as a whole, only that people are using the particular toll road. While project privatization does provide a large initial payoff, contracts must be carefully negotiated with performance based specifications to ensure that the public's best interest is served.